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AUTHOR Bredeson, Paul V.
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ABSTRACT

This paper presents and discusses a conceptual model for understanding, describing, and explaining personnel selection processes and activities. Four theoretical strands--decision theory, impression formation, inference theory, and rating theory--are briefly discussed and woven together as the basis for the proposed model. The model is then used as a theoretical framework for examining the results of a study investigating the effects of letters of recommendation on teacher selection processes and decisions. The study involved creating a file for a hypothetical social studies teacher that included one of four constructed letters of recommendation. The four letters each contained nine identical items of information about the candidate but varied by tone of information (favorable or neutral) and length of letter (short or long). Four treatment groups were established by sending the different types of letters of recommendation to 160 randomly selected high school principals in a large midwestern state. Major conclusions reached from the study are that when the content items of letters remain constant, there is no statistically significant difference in rating of teaching applicants who present long or short letters of recommendation. However, favorable information had a significant effect on the rating high school principals gave a hypothetical teaching candidate. (MLF)

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THE TEACHER SCREENING AND SELECTION PROCESS:

A DECISION MAKING MODEL FOR SCHOOL

ADMINISTRATORS

Paul V. Bredeson

Ohio University

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INTRODUCTION

Although many differences exist in terms of the style, structure and purpose among large and small school systems, they do share a common goal with respect to the maintenance of a personnel selection process that attempts to achieve congruency among people, positions and institutional goals. A school system, like any other organization, must expend time, money and energy to plan, implement and successfully maintain an efficient personnel selection system if it is to achieve its ultimate organizational goals. To fail in this responsibility is a waste of both financial and human resources. An equally serious implication is the threat of inadequately assessed, poorly chosen, or simply misplaced teachers whose performance adversely affects students.

There is a rich history of research dealing with the selection interview. The major findings and conclusions from many studies over the past four decades are reviewed and summarized by Arvey and Campion (1982); Mayfield (1964); Schmitt (1976); Wagner (1949); and Wright (1969). These reviews reveal wide ranges of interest, scope and focus of research on the selection interview. Included in the summaries are indications of theoretical, methodological and practical problems which have accompanied selection research for years. Schmitt (1976) states that "while knowledge concerning the interview has definitely been enhanced since Wright's review (1969), the generalizability of these artificial and micro-analytical studies to real employment situations remains unestablished" (p. 79). Many of the experimental, tightly

designed studies with sophisticated and rigorous data analysis are plagued by problems of validity and connection to real world selection processes and results (Gorman, Clover & Doherty, 1978).

In terms of research focus and methodology there continues to be a micro-macro analytical debate with regard to selection interview research. Though certainly not the only problem in selection research, the dilemma which personnel selection researchers face stems in part from the reductionistic focus from which the interview has been viewed. This view paradigmatically assumes that the total selection process can be reduced to micro-units and innumerable variables for the purposes of analysis and research and that this can be done without losing the important relationship of the parts to the whole of the phenomenon of selection. However, even after years of rigorous empirical/analytical studies, we still cannot sum the findings of these studies to give us a meaningful total view of personnel selection. This is not to say such research has been fruitless; quite the contrary. We know a great deal more today about personnel selection than we did forty years ago. My point is simply that perhaps we have come to the decision stage at which we need a thicker description of the human phenomenon of personnel selection. Though they may not have been suggesting exactly this point, Arvey, et al. (1982) in a recent research review state that indeed "researchers could profit from examining the interview from various theoretical models and frameworks which stem from other areas" (p. 312).

One major purpose of this paper is to present and discuss a conceptual model for understanding, describing and explaining personnel selection processes and activities. Four theoretical strands-- decision theory, impression formation, inference theory and rating

theory--are briefly discussed and woven together as the basis for the proposed model. A second purpose of the paper is to use the model as a theoretical framework for examining the results of a study investigating the effects of letters of recommendation on teacher selection processes and decisions. The implications of the findings from the study and the applicability of the model for practice and for further research will be reported in the final section of the paper.

Decision Theory

Previous studies and related literature indicate that personnel screening and selection is a complicated decision-making process which involves the perception, assessment, and evaluation of a variety of types of information which are made available to a decision-maker. This information may be accurate, inaccurate, incomplete, irrelevant, or simply false. The decision-maker in selecting candidates for the interview must filter this information through a perceptual screen and make a judgment based on an impression which has been formed.

The decision-making process is one of the most important and complex behaviors which occurs in an organization. Lipham (1974) viewed decision-making as a process "wherein awareness of a problematic state of a system, influenced by information and values, is reduced to competing alternatives, among which a choice is made, based upon estimated outcome states of the system" (p. 155). Lipham (1976) identified three basic dimensions in the decision-making process: decision content, decision stages and decision involvement. The dimension of decision stages is expanded into the flow of activities. The three dimensions identified by Lipham are implicit in the personnel selection process. In terms of decision content, selection naturally

is included in the staff personnel dimension. The level of involvement for the study reported in this paper focused on the high school principal. Finally, decision stages are suggestive of the notion of a series of events which occur in the total process of personnel selection in educational organizations. A major premise of this decision-making model is "that decision-making is a process which is influenced by information and values" (Lipham, Dunstan & Rankin, 1981, p. 3). Personnel selection then can be viewed as "a continuing series of decisional stages instead of a single event" (Dunnette & Borman, 1979, p. 480).

Impression Formation

Solomon E. Asch in his book Social Psychology (1952) summarized seven major characteristics which are relevant to the process known as "impression formation." (1) When one person forms an impression of another person, the impression tends to be a complete impression even though the evidence and information available may be meager. (2) A person does not see characteristics or attributes in another person as separate or distinct entities. As soon as a person sees two or more characteristics which belong to the same person, these characteristics enter into a dynamic interaction which produces a new quality to which initial observations are subordinated. (3) The process of impression formation tends to be a structured one in that all information does not have equal weight in the final impression created. Some factors are central, that is, they are weighted more heavily than other information which is peripheral with respect to the total impression. (4) Each trait or bit of information possesses the property of a part of a whole. The inclusion or omission of a single trait may alter the entire impression. (5) Each quality, attribute,

and bit of information is representative of the entire person. Regardless of its individual import, each quality of the person carries the person's personal signature. The attribute intelligence, for example, can mean something entirely different from person A to person B. (6) If an impression has already been formed and additional information or characteristics are presented, the information is seen within the context of the existing impression. (7) Finally, the processing of information by a person leads to the discovery of consistencies or contradictions. When processing information, a person has a sense of balance and consistency in terms of an impression of another. However, when information is presented which is contradictory to that original impression, several things happen even though a person may not be aware of them. The person simply does not stop with the perception of inconsistencies. "Apparent inconsistencies prompt us to search more deeply for a view that will resolve the difficulty" (p. 217), either to preserve the unity of the existing impression, to find reasonable explanations for such contradictions, or to reconsider the previous existing impression.

Inference Theory

Renato Tagiuri (1969) suggested that inference theory is closely related to impression formation. Impression formation and inference theory are based on cognitive theory or at least the cognitive theorist's point of view. This orientation emphasizes the importance of understanding how individuals receive and integrate information about the social world and how this information affects their behavior. This is particularly germane to the processing of information during personnel screening and selection. Castetter (1976) states that the "integration

of information about the candidate from all sources is a primary function of the selection process" (p. 187). This particular theory states that we "infer the state or characteristics of another person because the circumstances, behavior, or sequence of events are similar to those we have met in previous situations, and with which we ourselves have had previous experience" (Tagiuri, 1969, p. 415). In terms of our overall impression of other people and the cognitive process of knowing others, Tagiuri (1969) goes on to say that "it is clear that in most people, given some trait information about another person, generally go on to make inferences about a great variety of other traits not included in the data given" (p. 423).

Several studies, Anderson (1965) and Lewis (1975), support the view that subjects may indeed evaluate other people relative to an initial impression. The subjects not only form an initial impression but they have a level of expectancy about the other person even before any specific information about the other person is presented. This initial impression may be positive, neutral, or negative and "may be the result of previous experience in a social environment which gives rise to inferences concerning the attributes people are likely to have" (Wyer, 1970, p. 125).

Application of inference theory as it relates to impression formation was made by Sarbin, Taft, and Bailey (1960). They proposed a syllogistic inference model which is descriptive of the cognitive process of knowing others. Essentially the model describes six stages in the inference process.

1. Postulate system of judge--tacit or explicit premises.
2. Syllogistic major premise derived from postulate system.
3. Search for observation, occurrences relevant to major premise.

4. Instantiation or conversion of occurrence into an instance of general class.
5. Inferential product or conclusion.
6. Prediction.

From this general model, specific examples can be generated to demonstrate the processing of information in an attempt to know others. The following is an example of how this model can be made applicable to the selection process of classroom teachers (Bredeson, 1982).

1. Good teaching requires careful planning and ability to organize time wisely. (Postulate System of Judge)
2. People who develop and carry out a successful new teaching unit tend to be effective planners and organizers of time. (Syllogistic Major Premise)
3. Donald L. Carlbeck created and successfully carried out a new social studies unit for his American history classes. (Observation Relevant to Major Premise)
4. Unit development and execution are activities which require good planning and time-organizing skills.
(Instantiation)
5. Donald L. Carlbeck is probably a good planner and organizer of time. (Inferential Product)
6. Donald L. Carlbeck will probably be a good teacher.
(Prediction)

Rating Theory

Rating theory, developed by the late Robert J. Wherry, Sr., was recently articulated by Wherry and Bartlett (1982) in an article which

describes various means for controlling or removing sources of bias which contaminate human rating responses. Rating theory attempts to analyze the psychological processes of how an individual evaluates the performance or behavior of another person. Rating theory is developed as a series of mathematical equations which explain rating as the product of three major components: the performance of the ratee; the rater observation of the ratee's performance; and the rater's recall of the observed ratee performance. Each of these components is seen as having systematic portions which can be accounted for in terms of rating response and random portions or unexplained variance in ratings. Ideally, the goal of any rating response is to decrease the portion of random error which makes up part of rating by accounting for various sources of bias which affect the rating. The actual equation of a particular rating response is a very complex mathematical statement. However, each component of the rating response equation will be briefly discussed to develop its relevancy to the personnel selection process.

Ratee performance or perhaps behavior is described as the first link of the three components. This is the actual behavior of an individual under specific conditions. The actual behavior then is composed of the true ability of the ratee and deviations from this true behavioral state. The effect that environmental influences have on individual performance and variance in an individual performance are the components of actual ratee performance.

The second component is the observation and perception of the ratee's performance by the rater. This component is made up of an actual component which indicates an expectancy of ability equal to that

actually possessed by the ratee, an areal or non-relevant bias factor which is rater bias from the effects of previous rating errors and non-relevant experiences (Wherry, et al., 1982) which give rise to specific categorizations and classification of ratee behavior by the rater, and there is also an overall bias component which is essentially a social-psychological backdrop against which the rater evaluates all behaviors of a particular individual.

The third component is the recall and reporting of the ratee behavior by the rater. As indicated in earlier studies by F. C. Bartlett (1932), recall or memory of events is "more than the sum of its parts" (Wherry, et al., 1982, p. 927). Recall is sometimes largely composed of an imposed schema or a systematic bias factor of recall (p. 527). Similar to rater perception, recall is composed of a true recall component, areal and overall bias factors, and random error in recall.

The components then are linked in a series of events which combine to produce the ultimate rating response. The identification of the types of bias and the sources of bias can help raters deal with the accuracy of rating throughout the process. "Raters will vary in the accuracy of ratings given in direct proportion to the relevancy of their previous contacts with the ratee" (p. 532).

DESCRIPTION OF THE MODEL

Impression formation, inference theory, rating theory and decision theory can be linked together to create a more broadly based conceptualization of the selection process. The proposed model (Figure 1) represents the human processes of person-perception and evaluation as they relate to personnel selection activities in education and in other

PERSONNEL SELECTION PROCESS

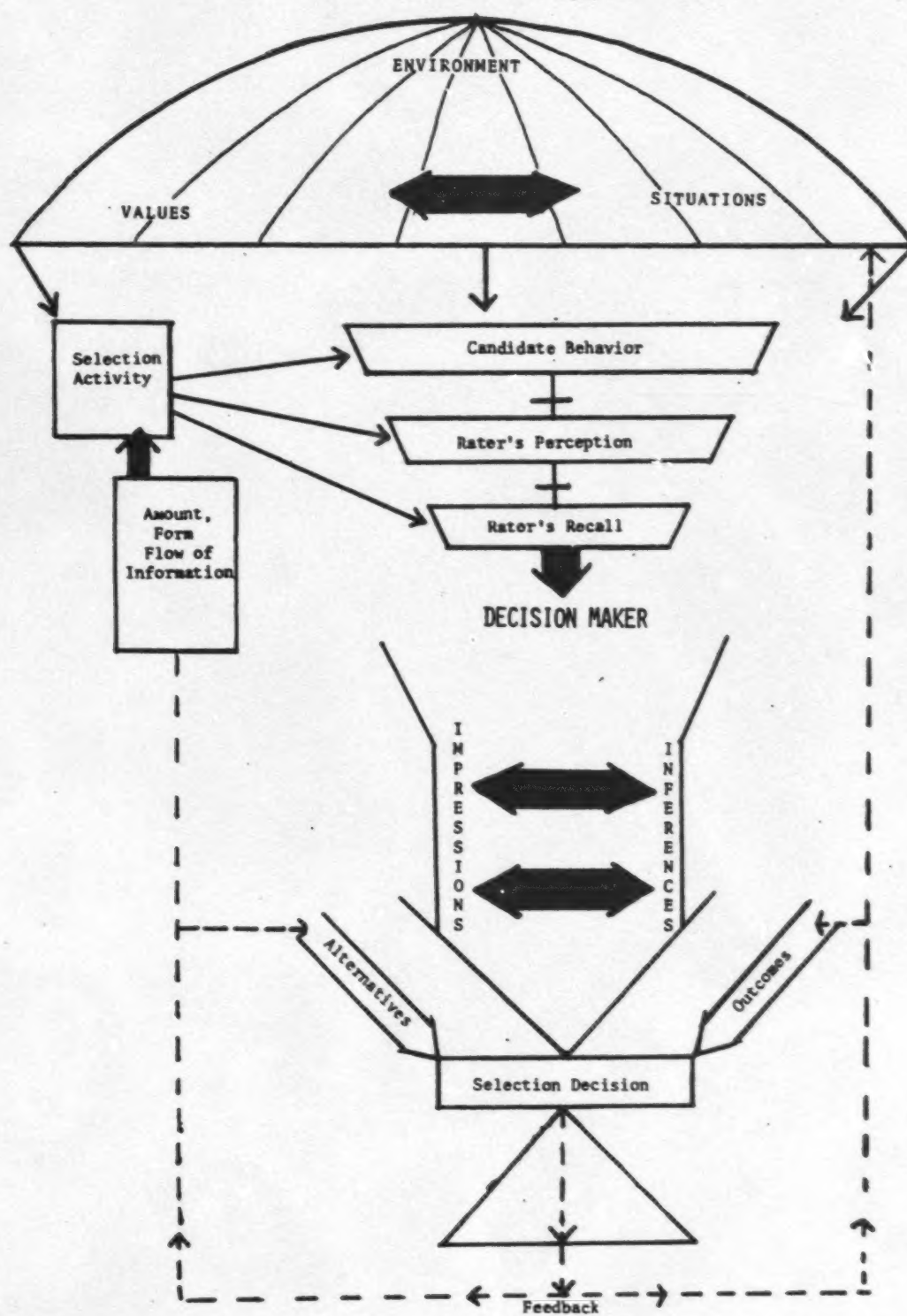


Figure 1

fields. A brief description of the flow of events as represented by the model will be presented. Components in the model will be described individually as well as discussed in terms of how each fits together with other components to form the representation of the total selection process.

The four theoretical strands give support to the notion that the personnel selection process is made up of a series of selection activities which take place within an environment characterized by values and situations. The interaction of values and situations create the environment in which selection activities occur. The selection activity that is chosen solicits particular candidate information which flows into the process in varying forms and in varying amounts. The selection activity then generates candidate information which is perceived by the decision maker and combined with other information and factors to create impressions and inferences about a candidate. The synthesis of information, ratings, impressions and inferences within a given environment yield various decision alternatives and expected outcomes which influence the final selection decision. Decision alternatives may be means for evaluating strengths and probable contributions of each candidate who has made it to the personal interview. Decision alternatives are influenced by environmental factors especially job market openness or tightness. If candidates for a particular teaching position number in the hundreds, there may indeed be a wide range of decision alternatives for the decision maker. However, if a school system today finds itself looking for highly qualified science, mathematics and computer science educators, the pool of candidates and possible selection alternatives among competing candidates is greatly

constricted. Once a selection decision is made, the dotted feedback line indicates that this decision becomes additional information for the process as well as a basis for ultimately evaluating the efficacy of the series of selection activities, ratings and decision outcomes as measured by job performance in the organization.

In the proposed model, the umbrella shaped configuration, which represents the environment in which particular selection activities and related processes occur, is defined by values and situations. The interactions of values and situations are key context variables which often are not considered in selection research. The values of the individuals involved in the selection process, the organizational value structures and priorities, and societal and cultural values have significant influence on the total process. To say that decision criteria, selection activities and decision outcomes are not value laden would be to ignore an important dimension of the human evaluation and selection phenomenon.

Equally important in the umbrella are situational factors which affect activities, participants and outcomes. Arvey, et al. (1982) state that an important "hole" in interview research is the lack of studies dealing with situational factors which affect interviewers and interviewees. Particular candidate and rater variables such as age, race, sex, physical appearance, experience, psychological characteristics, and verbal and nonverbal behaviors do affect interview outcomes. In addition, the physical settings, types, sequencing and structure of selection activities are situational factors which affect the selection process. Besides the normative dimensions within the environment, factors such as political, economic, legal and social forces in the

marketplace and the tightness or openness of the job market are key environmental influences (Arvey, et al., 1982; Schmitt, 1976).

The model depicts selection as a series of activities which typically are carried out in a funnel-shaped processing of candidates and candidate information. The series of activities ultimately ends with a decision to hire or not hire a particular candidate. The selection process includes a variety of activities ranging from the initial collection of written information about the applicants to final interviews. Among the more commonly used selection activities are: gross paper screening, fine paper screening, telephone reference checks, interviews, and examination of work samples.

The amount, form and flow of information which is gathered in the selection activities may or may not be specified by the decision maker. It is not too unrealistic to suggest that in practice each candidate does not always provide the same information on which he can be evaluated and compared with other candidates.

The format of the selection activity determines the degree to which candidate behavior is either directly observable, such as in an interview, or is representational of candidate behavior such as in written information provided in an application blank, resume, test score, certification information, letter of recommendation, transcripts and grades.

A major assumption of the proposed model is that selection is a rating process in which the rater(s) attempts to make a report upon the past behavior(s) of a candidate in some special area defined by a particular rating item (Wherry, et al., 1982). Selection processes take place in an atmosphere of uncertainty. The decision

maker rarely if ever has all of the information which represents the candidate's true ability. Situational constraints of time and selection activities, limited information, perception and recall variances between and within decision makers all conspire in deviations either in an over-estimation or under-estimation of the candidate's true ability. Despite such deviations, selection is a decision making process which involves a series of yes/no and hire/no-hire decisions from earlier gross screening activities to final decisions to offer employment. Since these decisions are, in fact, products of rating, the key idea is the control of systematic biasing factors and minimization of random error in the rating processes and decisions.

The rating process can be formalized through the use of various written instruments and scaling devices or it may be accomplished informally in a variety of ways by decision makers who seek to make sense of their impressions, to synthesize and to rate particular pieces of candidate information. Essentially the process of selection becomes one of recall or total integration of past observations and information about any given candidate. The process assumes a summing up or synthesizing of past and present candidate information as well as inferences of probable future behaviors and performance based on this information.

A STUDY OF THE EFFECTS OF LETTERS OF
RECOMMENDATION ON THE INTERVIEW
SELECTION PROCESS

The selection of teachers for new or existing positions within the school is the prerogative of the principal (Lipham & Fruth, 1976). The study reported here was designed to examine one facet of personnel

selection and decision-making--the processing and integrating of written information about prospective teacher applicants by high school principals for the purpose of screening those candidates during the initial stages of the selection process. The study focused on the letter of recommendation as one of the key pieces of written information which is used by principals for such decisions.

One of the ways teaching applicants are initially screened is by a review of their resumes and credentials. Though letters of recommendation are almost always included in a teaching applicant's file, they are neither enthusiastically nor unanimously endorsed. The literature abounds with pejorative descriptors suggesting that the letter of recommendation as a selection tool often provides candidate information which may be irrelevant or incorrect (Farley, 1978); sexist (Lunneborg & Lillie, 1973); discriminatory and distorted (Kryger & Shikiar, 1975); and indeed worthless in terms of generalizability (Bolton, 1973). Despite such criticisms, letters of recommendation continue to be valued by decision makers in personnel selection and indeed appear to have a high degree of face validity for writers, and readers, of these written references (Bredeson, 1982). As Lewis (1975) pointed out, "recommendations are written with the certainty, perhaps fed by repeated experience, that the various attributes mentioned are important to the reader, and it is this fact that makes them significant data" (p. 50). It is important that information in letters of recommendation is integrated with information from other sources for personnel decision making.

Bolton stated that "most studies indicate that letters of recommendation are either worthless generalizations or documents that fail

to reflect changes in the applicant's skills" (Bolton, 1973, p. 65). If this is the case, the question then is why letters of recommendation continue to be included in the written information about prospective job candidates. Since nearly all candidates have letters of recommendation included in their files, what purpose do they serve for the candidate and for the evaluator of the teaching applicant? Do letters of recommendation affect the screening process? Is there any value in letters of recommendation with respect to a particular candidate making it to the final round in employment selection, the personal interview?

Previous studies have reported that most letters of recommendation are either favorable in tone, or at worst, neutral in comment (Guion, 1965; Guillemin, 1979). Rim (1976) concluded that favorable letters of recommendation typically were longer than negative letters and that there appeared to be an optimal length for favorable letters of recommendation.

Specifically, three major questions were addressed in this study. Did the length of a letter of recommendation--short or long--have any effect on the overall rating of a candidate? Did the tone of a letter of recommendation--neutral or favorable--have any effect on the overall rating of a candidate? Finally, was there any combination of length and tone in letters of recommendation which affected the overall rating of a candidate?

Hypotheses

1. The overall rating of a candidate with a long letter of recommendation will not differ from the overall rating of a candidate with a short letter of recommendation.

2. The overall rating of a candidate with a letter of recommendation favorable in tone will not differ from the overall rating of a candidate with a letter of recommendation neutral in tone.
3. There will be no difference in the overall rating of a candidate by the principal due to any specific combination of the length of a letter of recommendation, short or long, and tone of a letter of recommendation, favorable or neutral.

Methodology

Since the content, tone and length of letters of recommendation are as varied as are the numbers of writers of those items, it was necessary to design an instrument which had a high degree of believability as an actual reference letter and which would at the same time permit experimental manipulation. A file for a hypothetical social studies teacher was constructed for the study. The file included information about the candidate's academic background, college grade point average, types of certification, educational work experience, other work experiences, a listing of work references and one of four constructed letters of recommendations. Four treatment groups were established by the type of letter of recommendation which 160 randomly selected high school principals in a large midwestern state received.

The four letters constructed for the study each contained nine identical items of information about a hypothetical first-year teaching candidate. The variables of interest, favorability of tone of information, and length of letter, were varied two ways. The length of each of the letters of recommendation was operationally defined as

short, eight to ten double-spaced typewritten lines, and as long, 20-25 double-spaced typewritten lines. The length was expanded but each letter was limited to the same nine specific content items.

The tone, favorable or neutral, of the four letters was determined by having two independent classes in the Department of Educational Administration at a large midwestern university rank ten letters of recommendation, five short and five long, from one (most favorable) to five (least favorable). The ten letters presented the same nine content items but with varying degrees of favorability. The rankings of these letters were used to choose the most favorable letter (ranked first), which would be the favorable letter used in the study, and the letter which was ranked third, being significantly different from the most favorable and the least favorable letters, which would be the neutrally toned letter of recommendation.

Kendall's Coefficient of Concordance (Gibbons, 1976) was used to measure the degree of association which was present among the individual rater's rankings of the same letters of recommendation. The coefficient of concordance, which is used to test the hypothesis of association, was used to describe the inter-rater agreement with respect to the rankings of the short or long letters. Rejection of the null hypothesis indicates association or agreement in two sets of rankings. The null was rejected. It was concluded that there was a statistically significant degree of association among the raters' rankings of the letters. Based on the same rankings the Friedman Multiple Comparison Technique tested the null hypothesis that there was no difference between the five short and five long letters in terms of favorability of tone. The null was rejected and consequently a categorization of one short letter and

one long letter as favorable and one short and one long as neutral was made.

Data were gathered for the study by means of a mailed survey. The 160 randomly selected high school principals were randomly assigned to one of four treatment groups of 40 subjects, each based on the type of letter of recommendation (long and favorable in tone; long and neutral in tone; short and favorable in tone; and short and neutral in tone) which was included in the hypothetical teaching applicant's file along with other written information. Each principal was instructed to review this file of information and then to give an overall rating to the candidate. A two-way analysis of variance was used to test the main and interaction effects of the independent variables (length and favorability of tone) of letters of recommendation on the dependent variable (overall candidate rating). Each hypothesis was tested at $\alpha = .05$.

Discussion of Findings

The first major conclusion based on the findings in this study is that when the length of a letter of recommendation is operationally defined as short, eight to ten lines, and as long, 20-25 lines, there is no evidence to support the notion that longer letters of recommendation will be perceived more favorably than will short letters of recommendation. When the content items of letters remain constant, there is no statistically significant difference in ratings of teaching applicants who present long or short letters of recommendation.

Rim (1976) had suggested that the length of a letter of recommendation was related to the favorability of perception of that letter by the readers. Perhaps there might even be an optimal length for a letter of

recommendation. The findings from this study do not support Rim's hypothesis.

The second major conclusion from the study is that favorable information, whether contained in long or short letters of recommendation, had a significant main effect on the rating which high school principals gave a hypothetical social studies teaching candidate. This supports Constantin (1976), Kryger et al. (1978), and Tucker and Rowe's (1979) assertion that candidates who are more favorably described are more likely to proceed from the screening stage of candidate selection to the actual interview.

Carlson and Mayfield (1967) also concluded that the degree of favorability of written information about job candidates is the most important factor affecting the decision-maker's choice among candidates. The favorability of tone of information in letters of recommendation accounted for over 29 percent of the total variance in a high school principal's overall rating of a hypothetical teaching candidate. From this main effect of favorability of tone, it appears that the tone of information in letters of recommendation does have a significant impact on the screening of teaching applicants.

Mayfield (1964) and Springbett (1958) suggested that favorable information had less impact in the interview selection decision-making process than did negative information. Boyd (1954) described the difference of impact between positive and negative information presented in personnel selection tools.

Negative statements about an applicant (perhaps because they are so rarely given) carry word for word a much heavier influence than do positive. Just as a drop of ink will cloud a whole glass of water darkly, so may a small increment of bad information darken out of proportion the description of an otherwise good

employment prospect; but a single drop of purest water in a bottle of ink scarcely affects the color. Because most people to be characterized are not wholly good and certainly not wholly bad, the writer of confidential recommendations is confronted with a problem analogous to that of isolating the necessary drop of ink in its small and proper corner, as if an insoluble capsule (p.16).

Many times the selection process is, in fact, a search for negative information or information which would disqualify an applicant. Employers can never predict future employee job performance with certainty from pre-selection information available to them. With future performance uncertain, information which is positive or favorable in tone is not necessarily as important to employers as would be negative information. Teacher selection is problematic because of prediction of who will make a 'good teacher.' Therefore in a primary sense as far as teachers are concerned we try to select those applicants who will at least do no active harm (de Landesheer, 1980).

Rim (1976) and Tucker, et al. (1979) suggested that there might be a relationship between the length and favorability of tone in letters of recommendation. The third major conclusion derived from the findings in this study is that there is not a significant interaction effect for length and favorability of tone for information contained in letters of recommendation constructed for this resume study.

The study of the effects of letters of recommendation can be examined through the use of the proposed model of the Personnel Selection Process (Figure 1). The environment created by values and situations was the context in which the written information in the letters of recommendation was assessed. The process of gross screening was the selection activity which, like all of the other activities, was influenced by its environment and was based on the amount, form and flow

of candidate information. The rating process became one of integrating information from letters of recommendation with other candidate information. The decision maker not only made an initial rating, decision, (through a yes/no decision to determine if the candidate would proceed in the selection process) but concurrently developed impressions and created expectancy frameworks for assessing subsequent information about a particular candidate. This then became the feedback dimension of the process which would flow back to affect other activities and decisions in later phases of the personnel selection process.

IMPLICATIONS

Final considerations include the implications for practice based on the study reported and secondly, the implications of the proposed personnel selection model for further research and practice in personnel selection.

The purpose of the study of letters of recommendation was to investigate the effects of letters of recommendation on high school principals' initial gross screening decisions in teacher selection. The findings strongly suggest that letters of recommendation are important pieces of candidate information which along with other pieces of information affect selection decision making. The fact is, letters of recommendation have been, are, and will most probably continue to be a valued source of candidate information which can be combined with information from other selection activities.

As personnel decision makers, high school principals are affected by the favorability of tone of information in letters of recommendation. Given this finding, those individuals who write, read, and/or present letters of recommendation need to recognize the importance of

favorability of tone and its impact on selection decisions in the initial stages of candidate screening and the possible effects on subsequent activities and phases in the total selection process. The study reported only dealt with the screening of first-year teaching candidates. Yet the initial rating of a candidate, based on information in letters of recommendation, has the potential for creating different expectancies and differential attributions to information gained in other selection activities later in other phases of the selection process. The hypothetical candidate in this study with a favorable letter of recommendation was rated significantly higher than the candidate with a neutral letter of recommendation. This higher rating could possibly lead to differential treatment of candidates (a source of systematic rating bias) in subsequent phases of the interview process. As Tucker, et al. (1979) stated, "an interviewer who begins with a favorable expectancy may be inclined to give an applicant the benefit of the doubt" (p.33). Therefore, principals who rate candidates at various stages in the selection process need to be aware of this potential source of bias in rating and decision making.

Principals need to consider a rating system which would give various kinds of applicant information different weights or values depending on its relationship to and impact on prestated performance expectations. Use of such a system would provide a structured and reliable method for integrating candidate information from a variety of sources. Given that raters are affected by the favorability of tone of information in letters of recommendation, principals and indeed all decision makers involved in personnel selection activities must read and evaluate letters of reference carefully to make sure that the favorable comments made in

letters are related to performance expectations and other job related criteria. Decision makers need a set position description and a clear understanding of the criteria on teacher job performance so that all information about a candidate, whether relevant or irrelevant, can be evaluated against pre-established rating scales and job related criteria.

The proposed model has several implications for practicing administrators. The model attempts to reduce the complexity of personnel selection to a visual representation which is practically and theoretically descriptive of the series of activities in selection. The model is meant to help administrators understand the processes in order to improve their practices. This is done with the belief that awareness of the components and their interrelationship is an important first step for understanding and for improving personnel selection policies and procedures.

The model presents personnel selection as a series of activities. The flow of activities and interrelationships depicted in the model are applicable to the whole range of selection activities from initial candidate screening to final decisions to hire. Key to understanding the model is the notion of selection as rating. Whether formal or informal the rating response is manifested in the impressions and inferences administrators make about prospective teachers. The model indicates that environmental factors (values and situations), perception and recall factors and types of selection activities all combine in ratings throughout the total selection process. Practicing administrators need to be aware of these factors. School administrators are involved in many, and in some cases, nearly all of the selection activities. In fact, school administrators in small districts may be the sole decision

maker in the total selection process. The model suggests that selection decisions are incorporated as additional feedback information in subsequent selection activities. Administrators need to be aware of this potential source of bias which can be carried over from one phase of selection to another.

A major purpose of the paper was the development of a model which would offer both practical and theoretical insight to the personnel selection process. The proposed model not only provides a new conceptual description of the phenomenon of personnel selection but it suggests a combination of four theories for which hypotheses might be generated and tested.

The findings from the study of letters of recommendation and the conceptualization of selection in the model deal primarily with the question of "how" the selection process works. Yet the "how" questions are only one way of addressing personnel selection. Selection activities might be examined from the perspective of "what" the selection process ultimately produces: the teachers in our schools and desired organizational and societal outcomes. Teacher selection and personnel decision-making might then be viewed as an intricate mosaic of kaleidoscopic pieces of context, time, and people. When these pieces are held up to different sources of investigatory light, they offer new configurations which are as rich in colorful combinations as they are in possibilities for future practice and continued research.

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